

REMARKS

Claims 1 – 5 and 13 – 14 are pending and under consideration in the above-identified application.

In the Office Action, Claims 1 – 5 and 13 – 14 were rejected.

In this Amendment, Claims 1, 2, 13, and 14 are amended. No new matter has been introduced as a result of this amendment.

Accordingly, claims 1 – 5 and 13 – 14 are at issue.

I. Objection To The Abstract

The Examiner objected to the abstract of the disclosure as appearing to be too long. In response, Applicants have appropriately amended the abstract.

Accordingly, Applicants respectfully request withdrawal of this objection.

II. 35 U.S.C. § 102 Rejection of Claims

Claims 1, 3, 5, and 13 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lin et al. (U.S. Patent No. 6,262,869). Although Applicants respectfully traverse these rejections, Claims 1 and 13 have been amended to clarify the invention and remove any ambiguities that may have been at the basis of these claim rejections.

Claim 1 is directed to a magnetic head using magnetoresistive effect comprising a magnetic sensing portion formed of a magnetoresistive effect element. The magnetic sensing portion includes a lamination layer structure portion in which at least a free layer made of a soft magnetic material of which the magnetization is rotated in response to an external magnetic field, a fixed layer made of a ferromagnetic material, an antiferromagnetic layer for fixing the magnetization of the fixed layer and a spacer layer interposed between the free layer and the fixed layer are laminated with each other in a thickness direction of the magnetic sensing portion. The lamination layer structure portion further includes a magnetic flux introducing layer of which a *side end surface* is opposed to a surface of *the magnetic head* which is brought in contact with or opposed to a magnetic recording medium. The lamination layer structure portion has *along the thickness direction* opposing side surfaces of *at least the free layer, the spacer layer and the fixed layer* formed of one flat surface or one continuous curved surface. A hard

magnetic layer for maintaining a magnetic stability of the free layer is disposed in direct contact with the opposing surfaces or through an insulating layer. A sense current for the lamination layer structure portion flows through the lamination layer structure portion in the thickness direction. An external magnetic field is applied to the direction extended along the plane direction of the lamination layer structure portion and which is extended substantially along the opposing side surfaces.

Lin et al. is directed to a spin valve sensor with an encapsulated keeper layer. Lin et al. does not disclose or suggest a sense current for the lamination layer structure portion that flows through the lamination layer structure portion in the thickness direction of the magnetic sensing portion, where the lamination layer structure portion has along the thickness direction opposing side surfaces of at least the free layer, the spacer layer and the fixed layer formed of one flat surface or one continuous curved surface, as required by Claim 1. Rather, in Lin et al., the sense current I_s flows perpendicular to the thickness direction, *i.e.*, from left to right in Fig. 11. (See col. 7, lines 18-19 and 43-45).

Thus, Claim 1 is patentable over Lin et al. Claims 3 and 5, dependent of Claim 1, are also patentable over Lin et al. for at least the same reasons. Similarly amended Claim 13 is also patentable over Lin et al. for reasons similar to those discussed with regard to Claim 1.

Accordingly, Applicants respectfully request withdrawal of these rejections.

III. 35 U.S.C. § 103 Rejection of Claims

Claims 2, 4 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. Applicants respectfully traverse these rejections.

Claims 2 and 14 have been amended to recite the same distinguishable limitation as that of Claim 1. Claim 4 depends on Claim 1 or Claim 2.

Thus, Claims 2 and 14 are patentable over Lin et al. for reasons similar to those discussed with regard to Claim 1. Dependent Claim 4 is also patentable for at least the same reasons.

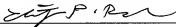
Accordingly, Applicants respectfully request withdrawal of these rejections.

IV. Conclusion

In view of the above amendments and remarks, Applicants submit that Claims 1 – 5 and 13 – 14 are clearly allowable and the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

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